

Virginia Department of Environmental Quality Office of Operator Training



**Process Control and Laboratory
Workshop Schedule
October 2006 – March 2007**

Department of Environmental Quality

Course #	Title	Location	Dates	Times	Maximum Enrollment	Fee
DEQ 12	Small Plant Sampling & Testing	DEQ - Piedmont RO Glen Allen VA	October 11 – 12, 2006	8:30 AM – 4:30 PM	16	\$100
DEQ 18	Introduction to BNR (Biological Nutrient Removal)	City of Lynchburg WWTP Lynchburg VA	October 17 – 18, 2006	8:30 AM – 4:30 PM	13	\$100
DEQ 3	Dissolved Oxygen & BOD Testing	DEQ – West Central RO Roanoke VA	October 24 – 25, 2006	8:30 AM – 4:30 PM	16	\$100
DEQ 18	Introduction to BNR (Biological Nutrient Removal)	Spotsylvania County - Massaponax Fredericksburg VA	November 8 – 9, 2006	8:30 AM – 4:30 PM	10	\$100
DEQ 5	Wastewater Solids Testing	DEQ - Piedmont RO Glen Allen VA	November 29, 2006	8:30 AM – 4:30 PM	16	\$50
DEQ 18	Introduction to BNR (Biological Nutrient Removal)	Augusta County SA - Verona Verona VA	December 5 – 6, 2006	8:30 AM – 4:30 PM	16	\$100
DEQ 15	Extended Aeration Package Plants	DEQ - Piedmont RO Glen Allen VA	January 16 – 18, 2007	8:30 AM – 4:30 PM	16	\$150
DEQ 18	Introduction to BNR (Biological Nutrient Removal)	DEQ - Piedmont RO Glen Allen VA	February 6 – 7, 2007	8:30 AM – 4:30 PM	20	\$100
DEQ 15	Extended Aeration Package Plants	DEQ - West Central RO Roanoke VA	Feb 27 – Mar 1, 2007	8:30 AM – 4:30 PM	16	\$150

Course descriptions are provided on the back of the page.

Course Descriptions

DEQ - 3 Dissolved Oxygen & BOD Sampling & Testing Training Credits: 1.0
Registration Fee: \$100

This two day workshop provides the knowledge and skills required to perform dissolved oxygen and five day biochemical oxygen demand sampling and testing. The program includes hands on training in performing the subject analyses as well as sampling considerations, sample preservation, sample pretreatment and seeding, required calculations, recordkeeping and required quality assurance considerations. If you perform or supervise the performance of dissolved oxygen and biochemical oxygen demand testing you will find this program beneficial.

DEQ - 5 Wastewater Sampling & Testing – Solids Testing Training Credits: 0.5
Registration Fee: \$50

This one day workshop provides the knowledge and skills required to perform total suspended solids sampling and testing. The program includes hands on training on the subject analysis as well as sampling considerations, sample preservation methods, calculations, recordkeeping, reporting results and quality assurance requirements. It will also include a discussion of sampling and testing procedures for other solids analyses such as volatile solids, settleable solids, and, as time permits, determination of % solids and % volatile matter in solid and semi-solid samples. If you perform or supervise the performance of wastewater solids testing you will find this program beneficial.

DEQ - 12 Sampling & Testing For Small WW Treatment Plants Training Credits: 1.0
Registration Fee: \$100

The program includes lecture, demonstration and hands-on laboratory exercises. The program will address topics of specific interest to small (<40,000 gpd) treatment facility owners and operators. Hands on activities will focus on requirements and procedures for on-site effluent monitoring and include: (a) performing the dissolved oxygen (D.O.) test using a D.O. meter; (b) performing the total residual chlorine using a direct readout DPD colorimetric procedure; (c) performing the pH test using a pH meter and electrode(s). The program will also include discussions of determining composite sample volumes, sample collection and preservation methods for biochemical oxygen demand, suspended solids, nutrient and bacteriological samples, recordkeeping, quality assurance/quality control requirements, completion of the discharge monitoring report, selection of a contract laboratory, and sources of assistance. This program is recognized by the State Board for Waterworks and Wastewater Works Operators.

DEQ - 15 Extended Aeration Package Plants Training Credits: 1.3
Registration Fee: \$150

A two and a half day program designed to introduce procedures available to evaluate and control an extended aeration package plant treatment system. Program will include lecture, class exercises, hands on activities and visits to one or more typical extended aeration package treatment plants. Topics covered during the program include treatment system components, normal operation, useful process control observations, sampling and testing (such as dissolved oxygen, pH, 30 & 60 minute sludge settleability) and a brief discussion of other, more advanced tests (such as mixed liquor suspended solids and microscopic evaluation of the activated sludge). The class will also cover basic process control calculations and helpful information for identifying and correcting operational problems. Students will perform the subject tests and use the information collected to evaluate process condition. The program will include data interpretation and basic troubleshooting. The program is recognized by the State Board for Waterworks and Wastewater Works Operators.

DEQ - 18 Introduction to BNR (Biological Nutrient Removal) Training Credits: TBA
Registration Fee: \$100

This two day workshop provides an introduction to the principles involved in biological nutrient removal. The focus of the program will be the suspended growth (activated sludge) BNR processes. If you operate or manage a treatment system which includes biological nutrient removal or will be required to implement biological nutrient removal, this program will be helpful. The program will discuss the basic concepts associated with biological nutrient removal (nitrification, denitrification and biological phosphorus removal). It will identify performance factors, provide typical operating ranges for many of these factors and review various design and operational configurations currently being used for BNR. Based on availability, the program will include one or more site visits to facilities currently achieving full or partial BNR. The program has been submitted for review and approval by the State Board for Waterworks and Wastewater Works Operators.

Process Control and Sampling & Testing Workshops General Information

Course Locations:

DEQ - Piedmont Regional Office (RO)

The Piedmont Regional Office of the Department of Environmental Quality is located at 4949A Cox Road, Glen Allen Virginia. Persons registering for the workshops will receive directions and other pertinent information (i.e. nearby lodging and restaurants)

DEQ – West Central Regional Office (RO)

The West Central Regional Office of the Department of Environmental Quality is located at 3019 Peters Creek Rd in Roanoke Virginia. Persons registering for the workshops at this location will receive directions and other pertinent information (i.e. nearby lodging and restaurants)

City of Lynchburg Wastewater Treatment Plant

The City of Lynchburg Wastewater Treatment Plant is located on Concord Turnpike in Lynchburg Virginia. Persons registering for the program will receive directions and other pertinent information.

Spotsylvania County, Massaponax Wastewater Treatment Plant

The Spotsylvania County Massaponax Wastewater Treatment Plant is located in Fredericksburg Virginia. Persons registering for the program will receive directions and other pertinent information.

Augusta County Service Authority, Verona Wastewater Treatment Plant

The Augusta County Service Authority, Verona Wastewater Treatment Plant is in Verona, Virginia. Persons registering for the program will receive directions and other pertinent information.

Registration:

Only complete applications (registration form & payment) submitted to the Department's Office of Finance at the address shown on the form will be considered. Applicants are accepted on a "first come - first served" basis. Due to popularity of the programs no "walk-in" registrations can be accepted. To register for these programs complete the registration form on the back, attach the appropriate payment and send to the address shown on the form. You will receive notification of your acceptance and an information package containing directions and other pertinent information.

Fees:

Fees are based on the length of the program and the complexity of the topic area covered. Fees for each program are listed on the schedule. Fee must be submitted in the form of check or money order made payable to the Department of Environmental Quality prior to the start of the program. No purchase orders or credit cards can be accepted. State Agencies should contact the Department's Finance Office (804 698-4162) for IAT procedures.

Course Approval:

These courses are approved or have been submitted for approval by the Virginia Board for Waterworks and Wastewater Works Operators. Approved programs can, when applicable, be used as substitution for required operational experience.

Withdrawal, Substitution & Refund Policy:

Registrants who must withdraw should notify the Department as soon as possible. Substitutions are permitted anytime **prior to the start of class**. Registrants who withdraw from the program at least 5 business days prior to the start of the program will receive a full refund. Withdrawals made after this time will not be eligible for a refund.

Cancellation:

The Department reserves the right to cancel any program when there are insufficient registrations. People who register will be notified of the cancellation and will receive a refund.

Breaks and Lunches:

The registration fee does not include break refreshments or lunch.

Additional Information:

Contact: Jack Vanderland Office of Operator Training Phone: 804 698 4092 email: jwvanderland@deq.virginia.gov

Workshop Registration Form

(If more than one person from your facility is planning to attend, please use a separate form for each person registering)

Please check the workshop(s) you are registering for:

_____	DEQ 12 Small Plant Sampling & Testing Piedmont Regional Office, Glen Allen, Virginia	October 11 – 12, 2006	\$100
_____	DEQ 18 Introduction to BNR City of Lynchburg WWTP, Lynchburg VA	October 17 – 18, 2006	\$100
_____	DEQ 3 Dissolved Oxygen & BOD Testing West Central Regional Office – Roanoke VA	October 24 – 25, 2006	\$100
_____	DEQ 18 Introduction to BNR Spotsylvania County Massaponax WWTP Fredericksburg VA	November 8 – 9, 2006	\$100
_____	DEQ 5 Wastewater Solids Testing Piedmont Regional Office, Glen Allen, Virginia	November 29, 2006	\$ 50
_____	DEQ 18 Introduction to BNR Augusta County Service Authority – Verona WWTP Verona VA	December 5 – 6, 2006	\$100
_____	DEQ 15 Extended Aeration Package Plants Piedmont Regional Office, Glen Allen Virginia	January 16 – 18, 2007	\$150
_____	DEQ 18 Introduction to BNR Piedmont Regional Office, Glen Allen Virginia	February 6 – 7, 2007	\$100
_____	DEQ 15 Extended Aeration Package Plants West Central Regional Office – Roanoke VA	Feb 27 – March 1, 2007	\$150

Registration Information

Name: _____

Mailing Address:

Street/PO Box: _____

City: _____ State: _____ Zip: _____

Daytime Phone: (____) - ____ - _____ Daytime Fax: (____) - ____ - _____

Email Address: _____

Employer Information:

Employer: _____

Supervisor: _____

Telephone: _____ FAX: _____

Email: _____

Mail registration form & payment to: Office of Finance
Department of Environment Quality
PO Box 10150
Richmond VA 23240

Total payment enclosed \$ _____